

ICSxxxx

C53

GB

National Standard of the People's Republic of China

GB14939-200X

Substitution for GB 14939-1994

Hygienic Standard for Canned Fish
(Submitted for Approval)

Issued on 20XX-XX-XX

Executed on 20XX-XX-XX

**Issued by Ministry of Public Health of the People's Republic of China and the China
Standardization Administration**

Introduction

This standard corresponds to, but is not equivalent with, Codex Alimentarius (CAC) standard Codex Stan 70-95 "Canned Tuna and Striped Tuna."

This standard substitutes GB14939-1994 "Hygienic Standard for Canned Fish".

In comparison with GB14939-1994, this standard mainly contains the following modifications:

The standard text format modified according to GB/T1.1-2000;

The structure of former standards is modified, with additions in the requirements for raw materials, food additives and production process, and other requirements for package, marking and storage.

The methyl mercury index in CAC/GL7-1991 "Fish Methyl Mercury Guidance Value" is adopted;

Limit value of zinc, cadmium, polychlorinated biphenyl and methyl mercury are added;

Limit value of total mercury is deleted;

Change "arsenic ≤ 0.5 mg/kg" to "inorganic arsenic ≤ 0.1 mg/kg" and "tin ≤ 200 mg/kg" to "tin ≤ 250 mg/kg for tin plated canned fish and ≤ 50 mg/kg for other canned fish".

The National Standard GB14939-1994 will be annulled at the time of adoption.

This standard is put forward and governed by the Ministry of Public Health of the People's Republic of China.

This standard is worked out by: Shanghai Municipal Disease Prevention Control Center, Shandong Province Sanitation and Antiepidemic Station, Zhejiang Province Disease Prevention Control Center, Shanghai Municipal Sanitary Inspection Institute and Jiangsu Province Disease Prevention Control Center.

This standard was authored by: Pu Huili, Jiang Peizhen, Zhang Li, Shen Xianghong, Zhang Shuangfeng, Gu Zhenhua, Yuan Baojun.

The previous standard being substituted by this standard is:

The standard was first issued in 1994. This is the first revision.

Hygienic Standard for Canned Fish

1 Scope

This standard stipulates the requirements of canned fish, food additives, hygienic requirements for production process, package, marking, storage and transport and method of inspection.

This standard applies to canned food made from fresh (frozen) fish through treating, sorting, selecting, processing, canning (including tin can, glass jar, laminated film or other packing materials), sealing, sterilizing and cooling, with a certain degree of vacuum.

2 Referenced Documents

The clauses in the following documents are referenced in this standard and become the clauses of this standard. Any modification lists (except text corrections) or revisions of the reference documents with specific date shall not apply to this standard. But, all parties of agreement based on this standard are encouraged to discuss if the newer versions of those documents are applicable. All reference documents without date that are the latest editions are applicable to this standard.

GB 2733	Hygienic standard for fresh and frozen animal aquatic products
GB 2760	Hygienic standard for food additive use
GB 4789.26	Food hygienic microbiological assay on canned food for commercial sterility inspection
GB/T 5009.11	Measurement of total arsenic and inorganic arsenic in food
GB/T 5009.12	Measurement of lead in food
GB/T 5009.13	Measurement of copper in food
GB/T 5009.14	Measurement of zinc in foods
GB/T 5009.15	Measurement of cadmium in food
GB/T 5009.16	Measurement of tin in foods
GB/T 5009.17	Measurement of total mercury and organic mercury in food
GB/T 5009.27	Measurement of benzo(a) pyrene in food
GB/T 5009.45	Analytical method of hygienic standard for aquatic products
GB/T 5009.90	Measurement of iron, tin and manganese in food
GB/T 5009.190	Measurement of polychlorinated biphenyl in seafood
GB 8950	Hygiene specification for canning factory

3 Requirements of indexes

3.1 Requirements of raw materials and auxiliary materials

3.1.1 Fish should conform to GS 2733.

3.1.2 Auxiliary materials should conform to relevant hygienic standards and regulations.

3.2 Sensory indexes

Sensory indexes should conform to the stipulations in Table 1.

Table 1 Sensory Indexes

Indexes	Requirement
Color	The content substance should have the characteristic color of fish after processing
Impurities	No foreign impurities, no peeling off of inner wall paint
Taste and odor	Having the natural aroma and taste of the product, without offensive odor

Appearance	The container shall be in good sealing, without rust, leakage or expansion
------------	--

3.3 Physical and chemical indexes

Physical and chemical indexes should conform to the stipulations in Table 2.

Table 2 Physical and chemical index

Indexes		Standards
Benzo (a) pyrene ^a , µg/kg	≤	5
Histamine ^b , mg/100g	≤	100
Lead (Pb), mg/kg	≤	1.0
Inorganic arsenic, mg/kg	≤	0.1
Methyl mercury, mg/kg		
Predatory fish (shark, sailfish, tuna, pike and other)	≤	1.0
Non-predatory fish	≤	0.5
Tin (Sn), mg/kg		
Tin plating canned food	≤	250
Other canned food	≤	50
Zinc (Zn), mg/kg	≤	50
Cadmium (Cd), mg/kg	≤	0.1
Polychlorinated biphenyl ^c , mg/kg	≤	2.0
PCB138 mg/kg	≤	0.5
PCB153 mg/kg	≤	0.5
Note: a Only applies to smoked fish canned food; ^b Only applies to mackerel canned food; ^c Only for seafish, and calculated as the sum of PCB28, PCB52, PCB101, PCB118, PCB138, PCB153 and PCB180.		

3.4 Microorganism index

Conform to the requirements of canned food in commercial sterility.

4 Food additives

4.1 The quality of food additives should conform to relevant standards and regulations.

4.2 The variety and quantity of food additives should conform to GB 2760.

5 Hygienic requirements for the process of production and processing

The hygienic requirements of production process should conform to GB 8950.

6 Packaging

The packing container and materials should conform to relevant hygienic standard and regulations.

7 Marking

7.1 Marking should conform to the relevant regulations.

8 Storage and transport

8.1 Storage

The products should be stored in a dry and ventilated place. Never keep it together with poisonous, harmful or smelling articles.

8.2 Transport

Transport vehicle should be clean and protected against strong shock. Never transport it together with poisonous, harmful or smelling articles.

9 Inspection methodology

9.1 Sensory examination

Take a certain amount of specimen or the smallest package and put the contents on a white plate. Observe the sample under natural light.

9.2 Physical and chemical inspection

9.2.1 Lead: According to GB/T5009.12.

9.2.2 Zinc: According to GB/T5009.14.

9.2.3 Cadmium: According to GB/T5009.15.

9.2.4 Tin: According to GB/T5009.16.

9.2.5 Methyl mercury: According to GB/T5009.17.

9.2.6 Benzopyrene (a): According to GB/T 5009.27.

9.2.7 Histamine: According to GB/T5009.45.

9.2.8 Inorganic arsenic: According to GB/T5009.17.

9.2.9 Polychlorinated biphenyl: According to GB/T5009.190.

9.3 Microorganism inspection

According to GB 4789.26.